REMARKS

This application has been carefully reviewed in light of the Office Action dated September 2, 2003. Claims 1 to 13 and 186 are in the application, of which Claim 1 is the sole independent claim. Reconsideration and further examination are respectfully requested.

The title was objected to for not being descriptive. Specifically, the Office Action indicated that the present claims are directed to methods or processes of detection, but the title includes quantitative processes and pyrylium compounds as well. The title has been amended to attend to the objection. Accordingly, withdrawal of the objection is respectfully requested.

The specification was objected to for omission of priority data, namely the status of the parent application, and for an informality. The specification has been amended to attend to the objection. Accordingly, withdrawal of the objection is respectfully requested.

Claims 1 to 13 and 186 were rejected under 35 U.S.C. § 112, first paragraph, for alleged lack of enablement. Applicants respectfully traverse.

Specifically, on page 5, the Office Action indicated that the elected compound in Claim 186, namely compounds of formula [9], lack enablement regarding a description as to how to make them. In addition, the Office Action alleged the processes for the synthesis of a compound of formula [9] are not set forth in the specification and no appropriate publications for the synthesis of compound [9] are apparent.

However, the Examiner is respectfully directed to EP 603,783 A1, which is referenced on line 15 of page 41 of the specification. EP 603,783 A1, on page 35, lines 21

to 37, is seen to disclose a method of synthesizing a compound of formula [9], or formula [35] as it is referred to in EP 603,783 A1. Notwithstanding, on page 41, lines 9 to 21, the specification indicates that research on pyrylium dye compounds has been conducted over many years and described in numerous articles and authored publications. The specification also points out that the methods for the synthesis of some of the pyrylium dye compounds, which are similar to the pyrylium dye compounds of formula [9], are known and previously disclosed. Accordingly, Applicants submit that the specification and earlier publications, articles and patents in the art sufficiently enable a person of ordinary skill in the art to make the compounds of formula [9].

Claims 1 to 10 were rejected under 35 U.S.C. § 112, first paragraph, for not being limited to the scope of enablement. Applicants respectfully traverse.

Specifically, on page 5, the Office Action alleged that the specification does not describe methods of associating a chemiluminescent compound with a double-stranded nucleic acid other than intercalation.

However, on page 17, lines 8 to 20, the specification lists various methods of association, including adsorption, incorporation and groove-binding. Moreover, from line 21 of page 17 to line 1 of page 18, the specification explains that the chemiluminescent compound YOYO-1 is used in the groove-binding method. In this regard, Example 8 is understood to describe detection using YOYO-1 and the association conditions of YOYO-1 with a double-stranded nucleic acid.

In view of the foregoing, withdrawal of the § 112, first paragraph, rejections is respectfully requested.

Claims 1 to 13 and 186 were rejected under 35 U.S.C. § 112, second paragraph, for alleged indefiniteness. Applicants respectfully traverse.

Specifically, on page 7, the Office Action asserted that although the preamble of Claim 1 sets forth a method directed to detecting a target single-stranded nucleic acid having a first base sequence, the actual claim steps do not include any specific limitation which is directed to the detection of the target single-stranded nucleic acid.

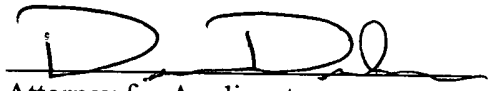
However, Claim 1 is seen to include steps for binding a target single-stranded nucleic acid with a probe which results in a double-stranded nucleic acid, associating a chemiluminescent compound with the resulting double-stranded nucleic acid, and detecting the luminescence of the associated chemiluminescent compound. Since this process provides for detection of the double-stranded nucleic acid through the detection of the associated chemiluminescent compound, the single-stranded nucleic acid is also necessarily detected in the process because it is a part of the double-stranded nucleic acid along with the bound probe. Accordingly, the preamble of Claim 1 does not render Claim 1 unclear.

In view of the foregoing, withdrawal of the § 112, second paragraph, rejection is respectfully requested.

No other matters being raised, it is believed the entire application is fully in condition for allowance, and such action is courteously solicited.

Applicants' undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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